

## CLAIMS

1. A method for processing user records, comprising the steps of:-
  - a) receiving user record information from a plurality of users, each set of user  
5 record information including at least a user identifier and/or a user address, and at least a subset of the received sets of user record information each further including a list of one or more other user identifiers and user addresses
  - b) storing the received sets of user record information as a plurality of user records;
  - 10 c) processing the user records to determine any common user identifiers and/or user addresses stored therein; and
  - d) storing link information linking those user records for which common user identifiers and/or user addresses were found to be stored therein.
- 15 2. A method according to claim 1, wherein at least one or more of the user addresses are telephone numbers.
3. A method according to claim 2, wherein at least some of the telephone numbers are mobile telephone numbers.
- 20 4. A method according to any of the preceding claims, wherein at least one or more of the user identifiers are the names of registered users.
5. A method according to any of the preceding claims, wherein the processing step  
25 further comprises:
  - processing the user records to determine, for any particular user record, whether the user address and/or user identifier thereof is/are included in any of the lists of user identifiers and/or user addresses from the other user records;
  - and wherein the storing step further comprises:
  - 30 storing link information linking the particular user record to those other of the user records whose lists included the particular user record's user address and/or user identifier.
6. A method according to any of the preceding claim, wherein the processing step  
35 further comprises:

processing the user records to determine, for any particular user identifier and/or user address stored in the list of any particular user record, whether the user address and/or user identifier is/are the same as any of the other user record user identifiers and/or user addresses;

5           and wherein the storing step further comprises:

storing link information linking the particular user record to those other of the user records whose user identifiers and/or user addresses is/are the same as the particular user identifier and/or user address stored in the list of the particular user record.

10   7.       A method for searching user records for user addresses in response to a request therefor, comprising the steps:

a)     storing a plurality of user records, each record to be processed including at least a user identifier and/or a user address, and at least a subset of the user records each further including a list of one or more other user identifiers and user addresses;

15       b)     storing link information linking those user records for which common user identifiers and/or user addresses are stored therein;

c)     receiving a search request from a user specifying a user identifier for which the corresponding user address is required; and

20       d)     searching the stored user records using the link information to provide one or more user addresses from the user records corresponding to the user identifier specified in the search request.

8.       A method according to claim 7, wherein the searching step further comprises identifying the user record of the user making the search request, and using the link information to identify further user records linked to the identified user record; wherein the link information is iteratively used to identify further user records located up to a predetermined number of links from the user record of the user making the search request; the searching step further comprising:

25       comparing the user identifiers of each respective identified user record with the user identifier specified in the search request; and

30       returning the user addresses of those user records whose user identifiers matched the search request as the search results.

9.       A method according to claim 7 or 8, wherein the searching step d) further comprises the steps of:

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e) searching the user records to produce a list of search results corresponding to the search request; and

f) using the link information to order the list of search results in order of potential relevance.

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10. A method according to claims 7 to 9, wherein at least one or more of the user addresses are telephone numbers.

11. A method according to claim 10, wherein at least some of the telephone  
10 numbers are mobile telephone numbers.

12. A method according to any of claims 7 to 11, wherein at least one or more of the user identifiers are the names of registered users.

15 13. A system for processing user records, comprising:-

a) means for receiving user record information from a plurality of users, each set of user record information including at least a user identifier and/or a user address, and at least a subset of the received sets of user record information each further including a list of one or more other user identifiers and user addresses

20 b) record storage means for storing the received sets of user record information as a plurality of user records; and

c) record processing means for processing the user records to determine any common user identifiers and/or user addresses stored therein;

wherein the record storage means is further arranged to store link information  
25 linking those user records for which common user identifiers and/or user addresses were found to be stored therein, as determined by the record processing means.

14. A system according to claim 13, wherein at least one or more of the user addresses are telephone numbers.

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15. A system according to claim 14, wherein at least some of the telephone numbers are mobile telephone numbers.

16. A system according to any of claims 13 to 15, wherein at least one or more of  
35 the user identifiers are the names of registered users.

17. A system according to any of claims 13 to 16, wherein the processing means is further arranged to process the user records to determine, for any particular user record, whether the user address and/or user identifier thereof is/are included in any of the lists of  
5 user identifiers and/or user addresses from the other user records;

and wherein the record storage means is further arranged to store link information linking the particular user record to those other of the user records whose lists included the particular user record's user address and/or user identifier.

10 18. A system according to any of claims 13 to 17, wherein the processing means is further arranged to process the user records to determine, for any particular user identifier and/or user address stored in the list of any particular user record, whether the user address and/or user identifier is/are the same as any of the other user record user identifiers and/or user addresses;

15 and wherein the record storage means is further arranged to store link information linking the particular user record to those other of the user records whose user identifiers and/or user addresses is/are the same as the particular user identifier and/or user address stored in the list of the particular user record.

20 19. A system for searching user records for user addresses in response to a request therefor, comprising:

a) storage means, arranged to store:-

i) a plurality of user records, each record to be processed including at least a user identifier and/or a user address, and at least a subset of the user records each  
25 further including a list of one or more other user identifiers and user addresses; and

ii) link information linking those user records for which common user identifiers and/or user addresses are stored therein;

c) means for receiving a search request from a user specifying a user identifier for which the corresponding user address is required; and

30 d) search means arranged to search the stored user records using the link information to provide one or more user addresses from the user records corresponding to the user identifier specified in the search request.

20. A system according to claim 19, wherein the search means further comprises:  
35 means for identifying the user record of the user making the search request, and

using the link information to identify further user records linked to the identified user record; wherein the link information is iteratively used to identify further user records located up to a predetermined number of links from the user record of the user making the search request;

5        user identifier comparison means for comparing the user identifiers of each respective identified user record with the user identifier specified in the search request; and

result means for returning the user addresses of those user records whose user identifiers matched the search request as the search results.

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21.        A system according to claim 19 or 20, wherein the search means further comprises:

e) record searching means arranged to search the user records to produce a list of search results corresponding to the search request; and

15        f) search result ordering means arranged to use the link information to order the list of search results in order of potential relevance.

22.        A system according to claims 19 to 21, wherein at least one or more of the user addresses are telephone numbers.

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23.        A system according to claim 22, wherein at least some of the telephone numbers are mobile telephone numbers.

24.        A system according to any of claims 19 to 23, wherein at least one or more of  
25        the user identifiers are the names of registered users.

25.        A method or a system for processing user records substantially as hereinbefore described with reference to the description and Figures 1 to 7, 10, and 11.

30        26.        A method or a system for searching user records substantially as hereinbefore described with reference to the description and Figures 1 to 4, and 8 to 11.

27.        A computer program arranged such that when executed on a computer system it causes the computer system to perform the method of any of claims 1 to 12.

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28. A computer readable storage medium storing at least part of a computer program according to claim 27.